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MEMORANDUM
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**DYNAMIC PROGRAMMING:
A BIBLIOGRAPHY OF THEORY
AND APPLICATION**

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PREFACE

Dynamic programming may be described as a mathematical theory of multistage decision processes. The method presented by this theory provides a valuable tool for the investigation of many challenging problems in such diverse fields as economics, engineering, systems analysis, and biomedical research. A bibliography of publications devoted to the theory and application of dynamic programming should prove helpful in all phases of problem solving—recognition, formulation, analysis, computation, and reformulation—for these different scientific areas.

Some of the publications cited in this bibliography are not directly concerned with dynamic programming, but they were nevertheless included because they contain allied concepts and, in some cases, valuable bibliographies.

The bibliography is divided into three different parts: first, there is a chronological ordering of publications, with authors listed alphabetically under each year; second, an alphabetical index of authors; third, a subject index, with authors listed alphabetically under each subject category.

The present bibliography is intended as a supplement to an earlier one (RM-3951-PR) that the authors prepared on the same subject. Accordingly, the subject index lists all nineteen of the topics that were mentioned in the other bibliography, even though the present one may not contain any entries for certain of these topics.

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ABBREVIATIONS

ACM	Association for Computing Machinery
AIEE	American Institute of Electrical Engineers
AMS-SIAM	American Mathematical Society — Society for Industrial and Applied Mathematics
ASME	American Society of Mechanical Engineers
IAS-ARS	Institute of Aeronautical Sciences — American Rocket Society
IBM	International Business Machines
IEEE	Institute of Electrical and Electronic Engineers
IFAC	International Federation of Automatic Control
IRE	Institute of Radio Engineers
M.I.T.	Massachusetts Institute of Technology
O.N.R.	Office of Naval Research
PGAC	Professional Group on Automatic Control
PGEC	Professional Group on Electronic Computers
PMM	Applied Mathematics and Mechanics
RIAS	Research Institute for Advanced Studies
SIAM	Society for Industrial and Applied Mathematics
TEMPO	Technical Military Planning Operation